

INFORMATION
STATEMENT
FEB 19 2002
PATENT & TRADEMARK OFFICE


DIFFERENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	<u>Translation</u> Yes No
<i>M</i>	1.	WO 92/04469	19 March 1992	PCT	_____	_____	X
<i>M</i>	2.	WO 90/02205	8 March 1990	PCT	_____	_____	X

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Examiner	<i>[Signature]</i>	Date Considered	2/24/03
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

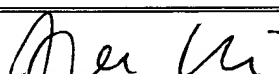
Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT 	Atty. Docket No. 00-713-i25	Serial No. 09/976,378
	Applicant: Chad A. Mirkin, et al.	
	Filing Date: 10/12/01	Group: 1656

U.S. PATENT DOCUMENTS


Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
M	1.	4,193,983	3/18/80	Ullman et al.			
	2.	4,256,834	3/17/81	Zuk et al.			
	3.	4,261,968	4/14/81	Ullman et al.			
	4.	4,313,734	2/2/82	Leuvering			
	5.	4,318,707	3/9/82	Litman et al.			
	6.	4,650,770	3/17/87	Liu et al.			
	7.	4,713,348	12/15/87	Ullman			
	8.	4,853,335	8/1/89	Olsen et al.			
	9.	4,868,104	9/19/89	Kura et al.			
	10.	5,225,064	7/6/93	Henkens et al.			
M	11.	5,294,369	3/15/94	Shigekawa et al.			
	12.	5,384,073	1/24/95	Shigekawa et al.			
	13.	5,384,265	1/24/95	Kidwell et al. Dup.			
M	14.	5,460,831	10/24/95	Kossovsky et al.			
	15.	5,472,881	12/5/95	Beebe et al. Dup.			
M	16.	5,514,602	05/07/96	Brooks, Jr. et al.			
	17.	5,521,289	5/28/96	Hainfeld et al.			
	18.	5,543,158	8/6/96	Gref et al.			
	19.	5,571,726	11/05/96	Brooks, Jr. et al.			
	20.	5,665,582	9/9/97	Kaushch et al.			
M	21.	5,681,943	10/28/97	Letsinger et al.			

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

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u	22. WO 89/06801	7/27/89	PCT			
	23. WO 97/40181	10/30/97	PCT			
	24. WO 98/04740	2/5/98	PCT			
	25. WO 99/23258	10/30/98	PCT			
	26. 0 630 974 A2	06/21/94	EPO			
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u	28.	Alivisatos et al., "Organization of 'nanocrystal molecules' using DNA," <i>Nature</i> , Vol. 382, pp. 609-611 (1996)
	29.	Bain, et al., "Modeling Organic Surfaces with Self-Assembled Monolayers," <i>Angew. Chem. Int. Ed. Engl.</i> , Vol. 28, pp. 506-512 (1989)
	30.	Bradley, "The Chemistry of Transition Metal Colloids," <i>Clusters and Colloids: From Theory to Applications</i> , G. Schmid, Editor, BCH, Weinheim, New York, pp. 459-542 (1994)
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	33.	Chen & Seeman, "Synthesis from DNA of a molecule with the connectivity of a cube," <i>Nature</i> , Vol. 350, pp. 631-633 (1991)
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u	35.	Dagani, "Supramolecular Assemblies DNA to organize gold nanoparticles," <i>Chemical & Engineering News</i> , p. 6-7, August 19, 1996

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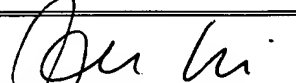
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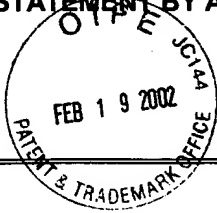
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	38.	Grabar et al., "Preparation and Characterization of Au Colloid Monolayers," <i>Anal. Chem.</i> Vol. 67, pp. 735-743 (1995)
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	45.	Mirkin et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials," <i>Nature</i> , Vol. 382, pp. 607-609 (1996)
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	47.	Mucic et al., "Synthesis and characterizations of DNA with ferrocenyl groups attached to their 5'-termini: electrochemical characterization of a redox-active nucleotide monolayer," <i>Chem. Commun.</i> , pp. 555-557 (1996)
	48.	Mulvaney, "Surface Plasmon Spectroscopy of Nanosized Metal Particles," <i>Langmuir</i> , Vol. 12, pp. 788-800 (1996)
2	49.	Rabke-Clemmer et al., "Analysis of Functionalized DNA Adsorption on Au(111) Using Electron Spectroscopy," <i>Langmuir</i> , Vol. 10, pp. 1796-1800 (1994)

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FOREIGN PATENT DOCUMENTS


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OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

50.	Roubi, "MOLECULAR MACHINES - Nanodevice with rotating arms assembled from synthetic DNA," <i>Chemical & Engineering News</i> , p. 13, (Jan. 1999)
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52.	Shaw & Wang, "Knotting of a DNA Chain During Ring Closure," <i>Science</i> , Vol. 260, pp. 533-536 (1993)
53.	Shekhtman et al., "Stereostructure of replicative DNA catenanes from eukaryotic cells," <i>New J. Chem.</i> Vol. 17, pp. 757-763 (1993)
54.	Smith and Feigon, "Quadruplex structure of Oxytricha telomeric DNA oligonucleotides," <i>Nature</i> , Vol. 356, pp. 164-168 (1992)
55.	Thein et al., "The use of synthetic oligonucleotides as specific hybridization probes in the diagnosis of genetic disorders," 2 nd Ed., K.E. Davies, Ed., Oxford University Press, Oxford, New York, Tokyo, p. 21-33 (1993)
56.	Wang et al., "Assembly and Characterization of Five-Arm and Six-Arm DNA Brached Junctions," <i>Biochem.</i> , Vol. 30, pp. 5667-5674 (1991)
57.	Wang et al., "A DNA Aptamer Which Binds to and Inhibits Thrombin Exhibits a New Structural Motif for DNA," <i>Biochem.</i> , Vol. 32, pp. 1899-1904 (1993)
58.	Weisbecker et al., "Molecular Self-Assembly of Aliphatic Thiols on Gold Colloids," <i>Langmuir</i> , Vol. 12, pp. 3763-3772 (1996)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: Chad A. Mirkin, et al.	
		Filing Date: October 12, 2001	Group: 1656

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FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1.	Brada, et al., "Golden Blot" -- Detection of Polyclonal and Monoclonal Antibodies Bound to Antigens on Nitrocellulose by Protein A-Gold Complexes, <i>Analytical Biochemistry</i> , Vol. 42, pp. 79-83 (1984) U.S.
2.	Dunn, et al., "A Novel Method to Map Transcripts: Evidence for homology between an Adenovirus mRNA and Discrete Multiple Regions of the Viral Genome, <i>Cell</i> , Vol. 12, pp. 23-36, (1997) U.S.
3.	Hacker, "High performance Nanogold - Silver in situ hybridisation, <i>Eur. J. Histochem</i> , Vol. 42, pp. 111-120 (1998) U.S.
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5.	Romano, et al., "An antiglobulin reagent labelled with colloidal gold for use in electron microscopy," <i>Immunochemistry</i> , Vol. 11, pp. 521-522 (1974) Great Britain

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		<div style="text-align: right; font-weight: bold; font-size: 1.2em;">RECEIVED</div> <div style="text-align: right; font-weight: bold;">FEB 26 2002</div> <div style="text-align: right; font-weight: bold; font-size: 0.8em;">TECH CENTER 1600/2900</div>	
		Applicant: Chad A. Mirkin, et al.	
		Filing Date: October 12, 2001	Group: 1656



U.S. PATENT DOCUMENTS

Examiner Initial	Serial No.	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
N	1.	5,609,907	03/11/97	Natan	3	3	
N	2.	6,025,202	02/15/00	Natan	3	3	
N	3.	6,149,868	11/21/00	Natan, et al.	3	3	


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						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

EXAMINER <div style="font-size: 1.5em; font-family: cursive;">J. A.</div>	DATE CONSIDERED 2/24/02
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<i>g</i>	1.	5,599,668	02/04/97	Stimpson, et al.	2	2
<i>m</i>	2.	5,990,479	11/23/99	Weiss, et al.	2	2

FOREIGN PATENT DOCUMENTS


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<i>2</i>	3.	Stimpson, et al., "Real-time detection of DNA hybridization and melting on oligonucleotide arrays by using optical wave guides," <i>Proc. Natl. Acad. Sci.</i> , Vol. 92, pp. 6379-6383, California Institute of Technology (1995) U.S.
	4.	Storhoff, et al., "Strategies for Organizing Nanoparticles into Aggregate Structures and Functional Materials," <i>Journal of Cluster Science</i> , Vol. 8, No. 2, pp. 179-217, Plenum Publishing Corporation (1997) U.S.
	5.	Storhoff, et al., "One-Pot Colorimetric Differentiation of Polynucleotides with Single Base Imperfections Using Gold Nanoparticle Probes," <i>J. Am. Chem. Soc.</i> , Vol. 120, pp. 1961-1964, American Chemical Society (1998) U.S.
	6.	Velev, et al., "In Situ Assembly of Colloidal Particles into Miniaturized Biosensors," <i>Langmuir</i> , Vol. 15, No. 11, pp. 3693-3698, American Chemical Society (1999) U.S.
<i>2</i>	7.	Zhu, et al., "The First Raman Spectrum of an Organic Monolayer on a High-Temperature Superconductor: Direct Spectroscopic Evidence for a Chemical Interaction between an Amine and Yb ₂ Cu ₃ O _{7-δ} ," <i>J. Am. Chem. Soc.</i> , Vol. 119, pp. 235-236, American Chemical Society (1997) U.S.

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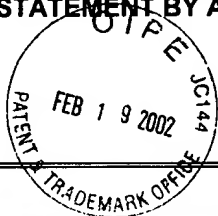
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8	Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," I. Theory, <i>Analytical Biochemistry</i> , Vol. 262, pp. 137-156 (1998) U.S.
9	Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," II. Experimental Characterization, <i>Analytical Biochemistry</i> , Vol. 262, pp. 157-176 (1998) U.S.

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2	1.	5,288,609	02/08/94	Mroczkowski, et al.			
	2.	5,284,748	02/22/94	Engelhardt, et al.			
	3.	5,360,895	11/01/94	Hainfield, et al.			
	4.	5,384,265	01/24/95	Kidwell, et al.			
	5.	5,472,881	12/05/95	Beebe, et al.			
	6.	5,599,668	02/04/97	Stimpson, et al.			
	7.	5,637,508	06/10/97	Kidwell, et al.			
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2	11.	WO 93/10564	27 May 93	PCT			
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	13.	WO 99/23258	14 May 99	PCT			
	14.	WO 99/21934	06 May 99	PCT			
M	15.	WO 99/20789	29 April 99	PCT			

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16.	O.D. Velez, et al., "In Situ Assembly of Colloidal Particles into Miniaturized Biosensors," <i>Langmuir</i> , Vol. 15, No. 11, pp. 3693-3698, May 25, 1999
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